This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An active damper for a stabilized mirror, said active damper comprising:

a tachometer measuring speed of a motor driving the mirror;

compensation electronics receiving input from said tachometer and the motor, said compensation electronics not computing or determining an acceleration of the motor; and

drive electronics providing output to the motor of the stabilized mirror and comprising an AC coupled rate loop; and

wherein said active damper does not affect operation of the mirror at frequencies at or below approximately one-half of a belt mode frequency.

2. (canceled)

3. (previously presented) The active damper of claim 1 wherein said electronics provide nearly zero phase shift at lower and upper crossover frequencies of a damper control loop.

4. (previously presented) The active damper of claim 1 wherein said active damper operates on said stabilized mirror in a gimbal.

5. (original) The active damper of claim 1 wherein said active damper dampens a belt mode.

6. (previously presented) The active damper of claim 5 wherein said active damper dampens said belt mode at a frequency between approximately 240 Hz to 700 Hz.

7. (previously presented) The active damper of claim 6 wherein said active damper provides at least approximately 70% dampening of said drive belt mode.

8. (original) The active damper of claim 5 wherein said active damper is substantially insensitive to belt frequency.

9. (original) The active damper of claim 1 wherein said active damper is substantially insensitive to changes in temperature.

10. (canceled) ~~The active damper of claim 1 wherein said active damper does not affect operation of the mirror at frequencies at or below approximately one-half of a belt mode frequency.~~

11. (currently amended) An active damping method for a stabilized mirror, the method comprising the steps of:

providing a tachometer measuring speed of a motor driving the mirror;

employing compensation electronics receiving input from said tachometer and the motor, the compensation electronics not computing or determining an acceleration of the motor; and

employing drive electronics providing output to the motor of the stabilized mirror and comprising an AC coupled rate loop; and

wherein the method does not affect operation of the mirror at frequencies at or below approximately one-half of a belt mode frequency.

12. (canceled)

13. (currently amended) The method of claim [[12]] 11 wherein the electronics provide nearly zero phase shift at lower and upper crossover frequencies of a damper control loop.

14. (previously presented) The method of claim 11 wherein the method operates on the stabilized mirror in a gimbal.

15. (original) The method of claim 11 wherein the method dampens a belt mode.

16. (previously presented) The method of claim 15 wherein the method dampens the belt mode at a frequency between approximately 240 Hz to 700 Hz.

17. (previously presented) The method of claim 16 wherein the method provides at least approximately 70% dampening of the drive belt mode.

18. (original) The method of claim 15 wherein the method is substantially insensitive to belt frequency.

19. (original) The method of claim 11 wherein the method is substantially insensitive to changes in temperature.

20. (canceled) ~~The method of claim 11 wherein the method does not affect operation of the mirror at frequencies at or below approximately one-half of a belt mode frequency.~~

21. (currently amended) An active damper for a stabilized mirror, said active damper comprising:

a tachometer measuring speed of a motor driving the mirror;

compensation electronics receiving input from said tachometer and the motor, said compensation electronics not computing or determining an acceleration of the motor; and

drive electronics providing output to the motor of the stabilized mirror and comprising an AC coupled rate loop; and

wherein said active damper dampens a belt mode at a frequency between approximately 240 Hz to 700 Hz.

22. (currently amended) An active damping method for a stabilized mirror, the method comprising the steps of:

providing a tachometer measuring speed of a motor driving the mirror;

employing compensation electronics receiving input from said tachometer and the motor, the compensation electronics not computing or determining an acceleration of the motor; and

employing drive electronics providing output to the motor of the stabilized mirror and comprising an AC coupled rate loop; and

wherein the method dampens a belt mode at a frequency between approximately 240 Hz to 700 Hz.

23. (previously presented) An active damper for a stabilized mirror, said active damper comprising:

a tachometer measuring speed of a motor driving the mirror;

compensation electronics receiving input from said tachometer and the motor, said compensation electronics not computing or determining an acceleration of the motor; and

drive electronics providing output to the motor of the stabilized mirror; and

wherein said active damper does not affect operation of the mirror at frequencies at or below approximately one-half of a belt mode frequency.

24. (previously presented) An active damping method for a stabilized mirror, the method comprising the steps of:

providing a tachometer measuring speed of a motor driving the mirror;

employing compensation electronics receiving input from said tachometer and the motor, the compensation electronics not computing or determining an acceleration of the motor; and

employing drive electronics providing output to the motor of the stabilized mirror; and

wherein the method does not affect operation of the mirror at frequencies at or below approximately one-half of a belt mode frequency.

25. (new) The active damper of claim 21 wherein said active damper provides at least approximately 70% dampening of said drive belt mode.

26. (new) The method of claim 22 wherein the method provides at least approximately 70% dampening of the drive belt mode.